



Docket No.: 500.43089X00

In Re the Application of:

Hidetaka SASAKI et al.

Serial No. 10/649,698

Filed: August 28, 2003

For: METHOD AND PROGRAM FOR MONITORING EXECUTION
STATE OF PROGRAM

April 5, 2005

PETITION TO MAKE SPECIAL
UNDER 37 CFR §1.102(MPEP §708.02)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Applicants hereby petition the Commissioner to make the above-identified application special in accordance with 37 CFR §1.102(d). Pursuant to MPEP §708.02(VIII), Applicants state the following.

(A) This Petition is accompanied by the fee set forth in 37 CFR §1.17(h). The Commissioner is hereby authorized to charge any additional payment due, or to credit any overpayment, to Deposit Account No. 50-1417.

(B) All claims are directed to a single invention. If the Office determines that all claims are not directed to a single invention, Applicant will make an election without traverse as a prerequisite to the grant of special status.

(C) A pre-examination search has been conducted.

The search was directed towards computer program monitoring. In particular, the search was directed towards a program execution state monitoring method using a computer for acquiring a plurality of item values associated with the program execution state at intervals linked to the items and stored in a storage device, the method comprising the steps of: comparing a value of one of the items among the plurality of items to a condition linked to the item and stored in the storage device, if the condition is not satisfied, modifying the interval of the item belonging to a group linked to the compared item and stored in the storage device to a value smaller than the interval, and modifying the interval of at least one of the items not belonging to said group to a value greater than the interval.

The search of the above features was conducted in the following areas:
Class 702, subclass 183, class 714, subclasses 38 and 47, class 717, subclass 127 and class 718, subclasses 100, 102 and 104.

(D) The following is a list of the references deemed most closely related to the subject matter encompassed by the claims:

<u>U.S. Patent Number</u>	<u>Inventors</u>
5,537,595	Sakata
5,758,189	Nakada et al.
6,223,201 B1	Reznak
6,438,551 B1	Holmskär

U.S. Patent Application Publication No.

Inventors

2004/0193827 A1

Mogi et al.

A copy of each of these references (as well as other references uncovered during the search) is enclosed in an accompanying IDS.

(E) It is submitted that the present invention is patentable over the references for the following reasons.

It is submitted that the cited references, whether considered alone or in combination, fail to disclose or suggest the invention as claimed. In particular, the cited references, at a minimum, fail to disclose or suggest if the condition is not satisfied, modifying the interval of the item belonging to a group linked to the compared item and stored in the storage device to a value smaller than the interval, and modifying the interval of at least one of the items not belonging to said group to a value greater than the interval and/or if the value of the item associated with the computer load is different from the condition linked to the item and stored in the storage device, modifying the interval of at least one of the items associated with the program execution state and having an interval not smaller than the initial value linked to the item and stored in the storage device to a greater value than the interval, and/or when the condition is not satisfied and the number of items related to the item compared is equal to or smaller than a predetermined value, modifying the interval of the respective items related to the compared one item to a smaller value than the interval, and/or when one of the

plurality of items does not satisfy the condition related to the item and stored in the storage device and there is a group related to an item different from the one item and including items whose intervals are smaller than the initial value set for the intervals, modifying the intervals of the respective items to the initial values, and modifying the interval of each of the items belonging to the group related to the one item to a value smaller than the interval, and/or modifying the interval related to the extracted item not related to the one item and stored in the storage device to an interval greater than the interval stored by said one computer or another computer different from it, and/or modifying the interval of at least one of the items associated with the program execution state and having an interval not smaller than the initial value related to the item and stored in the storage device to a greater value than the interval, and/or when the condition is not satisfied and the number of items related to the item compared is equal to or smaller than a predetermined value, modifying the interval of the respective items related to the compared one item to a smaller value than the interval, and/or when one of the plurality of items does not satisfy the condition related to the item and stored in the storage device and there is a group related to an item different from the one item and including items whose intervals are smaller than the initial value set for the intervals, modifying the intervals of the respective items to the initial values, and modifying the interval of each of the items belonging to the group related to the one item to a value smaller than the interval.

All of the independent claims recite at least one of these features or this feature, if there is only one. In particular, independent claim 1 recites if the

condition is not satisfied, modifying the interval of the item belonging to a group linked to the compared item and stored in the storage device to a value smaller than the interval, and modifying the interval of at least one of the items not belonging to said group to a value greater than the interval. Independent claim 4 recites if the condition is not satisfied, modifying the interval of each item linked to the compared item to a value smaller than the interval, and if the value of the item associated with the computer load is different from the condition linked to the item and stored in the storage device, modifying the interval of at least one of the items associated with the program execution state and having an interval not smaller than the initial value linked to the item and stored in the storage device to a greater value than the interval.

Independent claim 6 recites when the condition is not satisfied and the value of the item associated with the computer load satisfies the condition linked to the item and stored in the storage device, modifying the interval of the respective items linked to the compared one item to a smaller value than the interval. Independent claim 9 recites when the condition is not satisfied and the number of items related to the item compared is equal to or smaller than a predetermined value, modifying the interval of the respective items related to the compared one item to a smaller value than the interval. Independent claim 10 recites when one of the plurality of items does not satisfy the condition related to the item and stored in the storage device and there is a group related to an item different from the one item and including items whose intervals are smaller than the initial value set for the intervals, modifying the intervals of the respective

items to the initial values, and modifying the interval of each of the items belonging to the group related to the one item to a value smaller than the interval.

Independent claim 11 recites modifying the interval related to the extracted item related to the one item and stored in the storage device to an interval smaller than the interval stored by said one computer or another computer different from it, and modifying the interval related to the extracted item not related to the one item and stored in the storage device to an interval greater than the interval stored by said one computer or another computer different from it. Independent claim 12 recites if the condition is not satisfied, modifying the interval of the respective items related to the compared item to a value smaller than the interval, and modifying the interval of at least one of the items different from the aforementioned items related to the compared item to a value greater than the interval. Independent claim 14 recites if the condition is not satisfied, modifying the interval of each item related to the compared item to a value smaller than the interval, and if the value of the item associated with the computer load is different from the condition related to the item and stored in the storage device, modifying the interval of at least one of the items associated with the program execution state and having an interval not smaller than the initial value related to the item and stored in the storage device to a greater value than the interval.

Independent claim 16 recites comparing a value of one of the plurality of items to a condition stored in the storage device, and when the condition is not satisfied and the value of the item associated with the computer load satisfies the

condition related to the item and stored in the storage device, modifying the interval of the respective items related to the compared one item to a smaller value than the interval. Independent claim 19 recites comparing a value of one of the items among the plurality of items to a condition stored in the storage device, and when the condition is not satisfied and the number of items related to the item compared is equal to or smaller than a predetermined value, modifying the interval of the respective items related to the compared one item to a smaller value than the interval. Independent claim 20 recites when one of the plurality of items does not satisfy the condition related to the item and stored in the storage device and there is a group related to an item different from the one item and including items whose intervals are smaller than the initial value set for the intervals, modifying the intervals of the respective items to the initial values, and modifying the interval of each of the items belonging to the group related to the one item to a value smaller than the interval.

The references considered most closely related to the claimed invention are briefly discussed below:

U.S. Patent No. 5,537,595 (Sakata), assigned to Fujitsu Ltd., provides for a *Device Management System in a Computer System*. Discussed is a management period determining unit 14, which may determine a management period value which is short when a large load condition is present and a long management period when a small load condition is present. The managing unit 13 may execute, a management processing of device 10 to be managed in

accordance to short or long management period (see figure 1 and column 4, lines 48-57).

U.S. Patent 5,758,189 (Nakada et al.), assigned to Fujitsu Limited, provides for a *System for Changing Period to Examine External Storage Unit for Storage Medium Being Loaded Based on State of Use of Input Device*. Discussed is a method for performing monitoring at a prescribed monitoring time interval to determine whether a recording medium has been loaded in an external storage unit. Monitoring time interval may be lengthened when CPU load rate is high (e.g. when the computer is executing processing such as scientific and technological computations) or when the user is using the keyboard, in order to reduce the influence upon other tasks. Conversely, the monitoring time interval may be shortened when the CPU load rate is low or when the keyboard is not being used. Even though this reference does not appear to show program execution state monitoring, it does appear to show monitoring of whether a medium has been loaded, and a method of evaluating load value of a CPU and either lengthening or shortening a monitoring time interval accordingly (see column 3, line 67; column 4, lines 1-2; and column 11, lines 25-33).

U.S. Patent No. 6,223,201 B1 (Reznak), assigned to International Business Machines Corporation, provides for a *Data Processing System and Method of Task Management within a Self-Managing Application*. Disclosed is a self-managing application 60, which may monitor and control the amount of processing time utilized by application subtasks 64. Percentage of time for application subtasks 64 may be allocated by setting a default percentage for the

application. In response to a determination that a portion of processing utilized by the first application subtask 64 is greater than the allocated amount, process may proceed to schedule penalty assessment routine to execute on first application subtask 64. (see, column 3, lines 63-65; column 4, lines 15-16; and column 5 lines 10-15).

U.S. Patent No. 6,438,551 B1 (Holmskär), assigned to Telefonaktiebolaget L M Ericsson, provides for *Load Control and Overload Protection for a Real-Time Communication System*. Disclosed is a load regulation unit 20 which may calculate an average measure load value, i.e. load supervision interval. At the end of each long period of time the load regulation unit 20 may calculate the average load from the average measured load and the average load in the previous longer period of time. If the average load is above the target processor load limit, the message processing rate is decreased for the next longer period of time. (see, column 21 lines 35-44).

U.S. Patent Publication No. 2004/0193827 A1 (Mogi et al.) provides for a *Computer System for Managing Performances of Storage Apparatus and Performance Management Method of the Computer System*. Disclosed is a system management program 140 that appears to collect data of the operating state monitored by each apparatus. The interval at which the monitor function calculates the operating state (namely monitor sampling interval) appears to be short compared with the execution time of the job. In order to reduce the system's load, if possible, the monitor sampling intervals should be shortened only at the servers 70 related to the execution of the process and the

components in the storage apparatus 40 corresponding to the data obtained at step 1103. (see, figures 1 and 18, and paragraph 189).

Therefore, since the references fail to disclose if the condition is not satisfied, modifying the interval of the item belonging to a group linked to the compared item and stored in the storage device to a value smaller than the interval, and modifying the interval of at least one of the items not belonging to said group to a value greater than the interval, and/or if the value of the item associated with the computer load is different from the condition linked to the item and stored in the storage device, modifying the interval of at least one of the items associated with the program execution state and having an interval not smaller than the initial value linked to the item and stored in the storage device to a greater value than the interval, and/or when the condition is not satisfied and the number of items related to the item compared is equal to or smaller than a predetermined value, modifying the interval of the respective items related to the compared one item to a smaller value than the interval, and/or when one of the plurality of items does not satisfy the condition related to the item and stored in the storage device and there is a group related to an item different from the one item and including items whose intervals are smaller than the initial value set for the intervals, modifying the intervals of the respective items to the initial values, and modifying the interval of each of the items belonging to the group related to the one item to a value smaller than the interval, and/or modifying the interval related to the extracted item not related to the one item and stored in the storage device to an interval greater than the interval stored by said one computer or

another computer different from it, and/or modifying the interval of at least one of the items associated with the program execution state and having an interval not smaller than the initial value related to the item and stored in the storage device to a greater value than the interval, and/or when the condition is not satisfied and the number of items related to the item compared is equal to or smaller than a predetermined value, modifying the interval of the respective items related to the compared one item to a smaller value than the interval, and/or when one of the plurality of items does not satisfy the condition related to the item and stored in the storage device and there is a group related to an item different from the one item and including items whose intervals are smaller than the initial value set for the intervals, modifying the intervals of the respective items to the initial values, and modifying the interval of each of the items belonging to the group related to the one item to a value smaller than the interval, it is submitted that all of the claims are patentable over the cited references.

CONCLUSION

Applicant has conducted what it believes to be a reasonable search, but makes no representation that "better" or more relevant prior art does not exist. The Patent Office is urged to conduct its own complete search of the prior art, and to thoroughly examine this application in view of the prior art cited herein and any other prior art that the Patent Office may locate in its own independent search. Further, while Applicant has identified in good faith certain portions of each of the references listed herein in order to provide the requisite detailed discussion of how the claimed subject matter is patentable over the references,

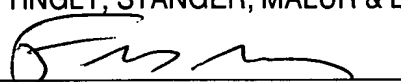
the Patent Office should not limit its review to the identified portions but rather, is urged to review and consider the entirety of each reference, and not to rely solely on the identified portions when examining this application.

In view of the foregoing, Applicant requests that this Petition to Make Special be granted and that the application undergo the accelerated examination procedure set forth in MPEP 708.02 VIII.

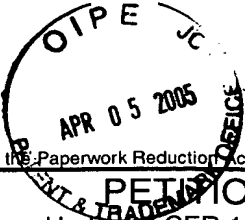
Respectfully submitted,

MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C.

By



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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

PETITION FEE
Under 37 CFR 1.17(f), (g) & (h)
TRANSMITTAL
(Fees are subject to annual revision)

Send completed form to: Commissioner for Patents
P.O. Box 1450, Alexandria, VA 22313-1450

Application Number	10/649,698
Filing Date	August 28, 2003
First Named Inventor	Hidetaka SASAKI et al.
Art Unit	2183
Examiner Name	Not yet assigned
Attorney Docket Number	500.43089X00

Enclosed is a petition filed under 37 CFR 1.102(d) that requires a processing fee (37 CFR 1.17(f), (g), or (h)). Payment of \$ 130.00 is enclosed.

This form should be included with the above-mentioned petition and faxed or mailed to the Office using the appropriate Mail Stop (e.g., Mail Stop Petition), if applicable. For transmittal of processing fees under 37 CFR 1.17(i), see form PTO/SB/17i.

Payment of Fees (small entity amounts are NOT available for the petition (fees))

- ☒ The Commissioner is hereby authorized to charge the following fees to Deposit Account No. 50-1417:
- ☐ petition fee under 37 CFR 1.17(f), (g) or (h) ☒ any deficiency of fees and credit of any overpayments
- Enclose a duplicative copy of this form for fee processing.
- ☐ Check in the amount of \$ _____ is enclosed.
- ☒ Payment by credit card (From PTO-2038 or equivalent enclosed). Do not provide credit card information on this form.

Petition Fees under 37 CFR 1.17(f):

Fee \$400

Fee Code 1462

For petitions filed under:

- § 1.53(e) - to accord a filing date.
- § 1.57(a) - to according a filing date.
- § 1.182 - for decision on a question not specifically provided for.
- § 1.183 - to suspend the rules.
- § 1.378(e) for reconsideration of decision on petition refusing to accept delayed payment of maintenance fee in an expired patent.
- § 1.741(b) - to accord a filing date to an application under § 1.740 for extension of a patent term.

Petition Fees under 37 CFR 1.17(g):

Fee \$200

Fee code 1463

For petitions filed under:

- §1.12 - for access to an assignment record.
- §1.14 - for access to an application.
- §1.47 - for filing by other than all the inventors or a person not the inventor.
- §1.59 - for expungement of information.
- §1.103(a) - to suspend action in an application.
- §1.136(b) - for review of a request for extension of time when the provisions of section 1.136(a) are not available.
- §1.295 - for review of refusal to publish a statutory invention registration.
- §1.296 - to withdraw a request for publication of a statutory invention registration filed on or after the date the notice of intent to publish issued.
- §1.377 - for review of decision refusing to accept and record payment of a maintenance fee filed prior to expiration of a patent.
- §1.550(c) - for patent owner requests for extension of time in ex parte reexamination proceedings.
- §1.956 - for patent owner requests for extension of time in inter partes reexamination proceedings.
- § 5.12 - for expedited handling of a foreign filing license.
- § 5.15 - for changing the scope of a license.
- § 5.25 - for retroactive license.

Petition Fees under 37 CFR 1.17(h):

Fee \$130

Fee Code 1464

For petitions filed under:

- §1.19(g) - to request documents in a form other than that provided in this part.
- §1.84 - for accepting color drawings or photographs.
- §1.91 - for entry of a model or exhibit.
- §1.102(d) - to make an application special.
- §1.138(c) - to expressly abandon an application to avoid publication.
- §1.313 - to withdraw an application from issue.
- §1.314 - to defer issuance of a patent.

Name (Print/Type)	Frederick D. Bailey	Registration No. (Attorney/Agent)	42,282
Signature		Date	April 5, 2005

This collection of information is required by 37 CFR 1.114. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.